



Ritual circumcision: no longer a problem for health services in the British Isles

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ABSTRACT

INTRODUCTION Primary care trust (PCT) funding of a ritual circumcision service has recently been withdrawn from our unit, raising concerns that this may result in greater morbidity from community circumcision. The aims of this study were to document our circumcision practice before and after the withdrawal of PCT funding and to determine its effect on the morbidity from circumcision. In addition, we wanted to survey all paediatric surgical centres in the British Isles to ascertain how many still offer a ritual circumcision service.

PATIENTS AND METHODS We retrospectively reviewed our circumcision practice for 1 year prior to the removal of UK Government funding, and then performed a prospective audit of our practice for the 12 months following funding withdrawal. An e-mail survey was also performed of all paediatric surgical units to determine the ritual circumcision service provision throughout the British Isles.

RESULTS A total of 213 boys underwent circumcision during the 12 months prior to the withdrawal of funding, of which 106 cases (50%) were ritual circumcisions. After funding withdrawal, 99 boys underwent circumcision, of which 98 cases (99%) were for medical reasons. A similar number of boys were re-admitted after a hospital circumcision during the two review periods (5 versus 4 patients), whereas the number admitted following a community circumcision rose after funding withdrawal (6 versus 11 patients). Only a third of British paediatric surgical centres offer a ritual circumcision service, and a significant proportion of these were either providing the service without PCT funding, or were reconsidering their decision to continue.

CONCLUSIONS PCT funding withdrawal for ritual circumcision had an impact on our unit's procedural case volume. This represented a cost saving to the trust, despite a higher rate of admissions for postoperative complications. There is an inequality in healthcare provision throughout the British Isles for ritual circumcision, and we feel it is vital to offer support and training to medical and non-medical practitioners who are being asked to perform a greater number of circumcisions in the community.

KEYWORDS

Ritual circumcision – Community circumcision – NHS funding

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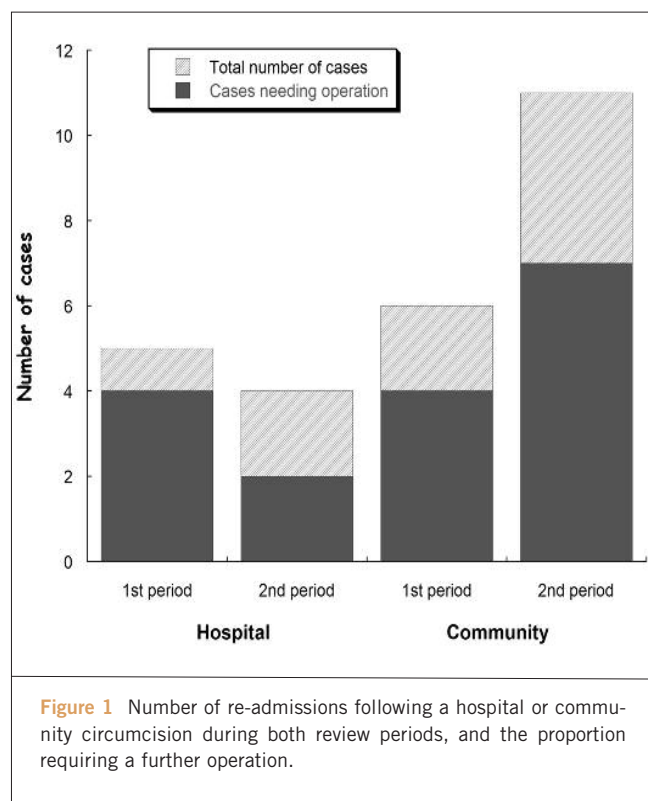
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Circumcision is the most common surgical procedure world-wide,¹ with a third of the global male population having undergone the procedure.² When there is no therapeutic indication, it is termed a ritual circumcision. This is usually for religious or cultural reasons, typically in Jewish boys on day eight of life and Muslim boys at an early age before puberty.

There are an estimated 30,000 ritual circumcisions performed in Great Britain every year.³ The majority of these are performed outside the National Health Service (NHS) by general practitioners and non-medical religious practitioners.⁴ Guidelines from the British Association of Paediatric Urologists (BAPU) state that the standards of care relating to the practice of religious circumcision should be identical to

those for any other operation.⁵ The safety of boys undergoing circumcision out of hospital, as well as the provision of adequate analgesia, has previously been questioned.^{6–8} Due to concerns over standards of care of ritual circumcision in the community, our unit provided a UK Government funded, hospital-based service for several decades. Primary care trust (PCT) funding was withdrawn in December 2006 due to financial pressures.

The hypotheses for this study, therefore, were: (i) due to the current UK financial climate, the elimination of a ritual circumcision service is likely to be occurring in other British trusts; and (ii) increasing the workload on unregulated community circumcision practitioners may lead to a secondary burden on acute units dealing with the resulting



complications. Hence, the aims of this study were to: (i) document the number of circumcisions performed in our institution before and after the withdrawal of government funding; (ii) survey all centres offering paediatric surgery in the British Isles in an attempt to ascertain how many offer a ritual circumcision service; (iii) assess the degree of shift, if any, of morbidity from the hospital to the community following the withdrawal of funding; (iv) calculate the financial implications of funding withdrawal; and (v) review the different methods of circumcision performed in the community, in order to inform those who may encounter these patients in the emergency room setting.

Patients and Methods

A retrospective review was undertaken of all circumcisions performed in our department during the 1-year period prior to removal of Government funding. This was followed by a prospective study of all circumcisions performed during the 12 months after funding was withdrawn. Our unit is a single-site tertiary unit of five consultant paediatric surgeons who all employ a similar sleeve resection technique. All operations were performed under general anaesthesia on a day-case basis. Following ethical approval, index cases were identified from an electronic theatre record system and data were retrieved from hospital case notes. Parameters measured included indications for surgery (as

stated at initial out-patient review), proportion of ritual circumcisions performed, complication rates for medical and ritual circumcisions, and histopathology of the foreskins removed for medical reasons. An e-mail survey was also sent to all paediatric surgical units throughout Great Britain and Ireland to determine which units were still performing ritual circumcision, and how the service was funded.

Results

Unit experience

In our own unit, 312 boys underwent circumcision over the 24-month period. During the 12 months prior to the withdrawal of funding, 215 boys underwent circumcision, of which 106 cases (50%) were ritual circumcisions. In the second review period, following withdrawal of funding, 99 boys underwent circumcision, of which 98 cases (99%) were for medical reasons. One boy did undergo ritual circumcision during this second period although funding approval was given due to significant co-morbidity. Histopathological analysis was performed on 50% of the foreskins excised for medical reasons and revealed in all cases either scarring from chronic inflammation or balanitis xerotica obliterans. Median age at circumcision during the first study period was 5 years (range, 0.1–16 years) compared with 9 years (range, 7–14 years) during the second review period.

Five patients (2%) were re-admitted postoperatively during the first study period, four of whom required a further operation due to bleeding. During the same period, six patients attended hospital following a community circumcision. Four of these required a general anaesthetic – to remove a Plastibell device (2 patients) and because of bleeding (2 patients). The denominator for these cases, in other words the total number of circumcisions performed in the community, is unknown. During the second review period, four patients (4%) were re-admitted because of complications following hospital circumcision, two of whom required a general anaesthetic. Eleven patients were admitted following a community circumcision; four of these required an operation to remove a Plastibell device or because of bleeding. Again, the denominator for these cases is unknown (Fig. 1).

The estimated cost of performing 106 ritual circumcisions on an annual basis was £97,775, based on data obtained during the first year of the study. The cost to the trust due to the complications of community circumcisions during the second year was estimated at £4,298. Cessation of a funded ritual circumcision service, therefore, led to an overall potential cost saving of £93,475.

National audit

Thirty hospitals in the British Isles carrying out paediatric surgery were contacted in January 2007, and all responded.

Ten (33%) were still carrying out ritual circumcisions within a hospital-based setting. Nine of those were in Northern Ireland or the northern UK regions. Four units were providing the service without Government funding, whilst three other trusts were reconsidering their decision to continue. Of the 20 units that did not offer a Government-funded service, seven did perform the procedure if funded by the patient. Varying fees for this were described and were considerably less than those in the private sector. Two units stated they would perform the procedure and then apply for funding if significant co-morbidity precluded the procedure in the community. In some regions, there is a community service funded by the local PCT.⁴ Also, one unit had audited a local community ritual circumcision service and found 1 in 6 boys subsequently required hospital admission (Oxford, personal communication).

Discussion

Recent changes in funding priorities in the UK have meant non-therapeutic circumcision is no longer offered in West London. The increase in non-hospital based practice has similarly been documented in other European countries.⁹ Despite this, there is a belief that the Government should provide faith-specific healthcare services, including ritual circumcision.¹⁰ This is supported by a recent report from NHS Scotland.¹⁹ Clinical trial evidence from sub-Saharan Africa linking circumcision and a reduction in HIV transmission in high-risk populations where condom use is minimal¹¹ may also have an impact on the community requests for circumcision.

Our study demonstrates that, prior to the withdrawal of funding, half of all circumcisions performed in our unit were for religious or cultural reasons. Following funding withdrawal, this resulted in a considerable cost saving to the trust, which disproved our hypothesis that any financial saving may be offset by the cost resulting from an increase in morbidity of community circumcision. We were unable to document a true increase in morbidity of community circumcision after funding withdrawal as the actual number of ritual circumcisions being performed outside the hospital setting was unknown. These data have always been difficult to determine. In a letter to the *British Medical Journal*, Cohen and Zoltie¹² stated they had performed over 2000 ritual circumcisions in the community and had encountered significant bleeding in only 0.002% of cases, with only 0.001% of all complications requiring further surgery. Schmitz *et al.*⁹ reported a prospective, non-randomized trial of a physician-led community-based service using the Taraklamp device versus a hospital-based practice employing a conventional sleeve resection technique. They found there were no differences in complication rate or post-operative pain scores. The Taraklamp did, however, demonstrate a shorter operating time and improved cosmetic out-

come. Chaim *et al.*¹³ reviewed postoperative complications following 19,478 Israeli ritual circumcisions performed by religious (non-medical) practitioners and hospital units. Overall, the complication rate was low for both hospital and community practices.

Complications following community circumcision will inevitably present to acute units and knowledge of the techniques used is important for hospital practitioners. Unlike female circumcision, non-therapeutic circumcision in boys is legal and may be carried out by people who are not medically registered.¹ In the Jewish community, the procedure is carried out by a religious practitioner, called a Mohel, early in life, whilst for Muslims it is usually performed by a Muslim general practitioner or paediatrician.¹ The Mohel often uses a simple shield and blade technique, or a Plastibell device for the older child, which is usually carried out under regional anaesthesia. The Plastibell technique is the most common method used in the community and involves placing a device on the glans often after performing a dorsal slit. The incised foreskin is then pulled forward over the device and a ligature is applied to the foreskin in a groove on the surface and left in place. This impedes the blood supply to the distal foreskin which then falls off, with the device, several days later. Other techniques used in the community include the Gomco and Mogen clamps which are similar in that they involve clamping the foreskin for several minutes to aid haemostasis, followed by excision of the foreskin distal to the clamp which is then removed. The overall reported complication rate with the Plastibell technique is 2–3%,^{4,14,15} the most common problems being bleeding and device migration. The authors suspect these complications are probably under-reported; however, this may also be the case following hospital circumcision. Sepsis is the main cause of death following neonatal community circumcision,¹⁶ and death due to blood loss has also been seen in older children.⁸ Other reported complications include poor cosmesis, meatal ulceration, and partial amputation of the glans.¹⁷

In 2007, The British Association of Paediatric Urologists issued a statement on behalf of the British Association of Paediatric Surgeons regarding the standards of care for ritual circumcision.⁵ The document makes particular reference to adequate operator training, appropriate sterility and analgesia, the availability of hospital support, and the need for the consent of both parents, which even in paediatric surgical units is rarely performed.¹⁸ It would appear that support, regulation, and training for medical and non-medical practitioners involved in ritual community circumcision are severely lacking and we feel this must be addressed.

Conclusions

A cost benefit to our trust was observed following withdrawal of funding for ritual circumcision, whilst a true impact on

morbidity resulting from the shift towards community circumcision could not be accurately assessed. A return to a Government-funded service is unlikely in many UK trusts. NHS Scotland, however, has confirmed its commitment to a funded ritual circumcision service within the hospital-based setting, highlighting the inequality in healthcare provision evident in the British Isles. The authors feel that the welfare of any boy undergoing community circumcision is paramount and the practice of ritual circumcision outside of the hospital needs close monitoring. Training and support should be given to those community practitioners wishing to uphold the guidelines of the British Association of Paediatric Urologists/British Association of Paediatric Surgeons, and help should be provided by the PCT which has a fundamental duty to protect the healthcare of the community they serve.

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